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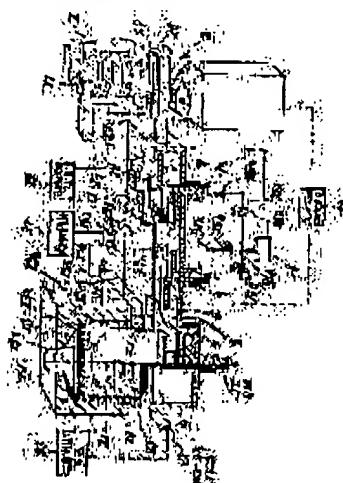
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(54) HEAT TREATMENT EQUIPMENT FOR SEMICONDUCTOR SUBSTRATE

(57)Abstract:

PURPOSE: To enable heat treatment to be performed meeting the requirements for wafers in the specified high purity gas atmosphere by a method wherein an exhaust system and gas feeder are connected to a load lock chamber, a wafer carrier chamber and a heat treatment chamber while upper surface and side heating sources of respective wafers are arranged in the heat treatment chamber.
CONSTITUTION: After carrying wafers 11 from atmosphere to a load lock chamber 4, opening and closing door 4a and gate valves 7, 9 are closed and then the atmosphere in the load lock chamber 4 is substituted with high purity gaseous atmosphere specified by the load lock chamber 4, a wafer carrier chamber 3, a heat treatment chamber 12, an exhaust system 18 and a gas feeder 17. Then, the gate valves 7, 9 are opened to actuate wafer holders 28, 10, carrier mechanisms 5, 6 for feeding wafers 11 to heat treatment chamber 12 to be heat treated and returned to the load lock chamber 4 after heat treatment. Besides, within the heat treatment chamber 12, wafers 11 are turned to be evenly heated by an upper surface heating source 13a and a side heating source 13b. Furthermore, the temperature of wafers 11 can be measured by a radiation temperature measuring device 21 so that the electric conduction of heating sources 13a, 13b may be controlled by a temperature controller 22 to promote the heat treatment of wafers 11.



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